

AMENDMENTS TO SPECIFICATION

Please amend the paragraph beginning at the top of page 6 as follows:

The propagation channel between a given mobile terminal 16 and a given antenna 14 comprises a number of propagation paths. These multiple propagation paths, referred to as multipaths, each have characteristic attenuation, phase, and delay attributes, which may be expressed as a complex coefficient representing magnitude and phase, and a corresponding delay attribute. Thus, channel C_{jk} may be represented by the polynomial

$$C_0 + C_1 z^{-1} + C_2 z^{-2} + \dots + C_{n-1} z^{-(n-1)}, \quad C_0 + C_1 z^{-1} + C_2 z^{-2} + \dots + C_{n-1} z^{-(n-1)} \text{ where } C_n$$

represents the channel coefficient associated with a single multipath and is a delay operator that represents the unit delay of the various multipaths relative to the first received multipath. The time delay operator could be expressed relative to a multipath other than the first received multipath, in which case the above expression would include channel coefficients with positive delay elements (e.g., $C_x z^{+4}$, $C_{x-1} z^{+3}$, and so on). In any case, the above expressions demonstrate that the multipath channel between any mobile terminal 16 and a transmit antenna 14 may be expressed as a polynomial in z , based on the channel coefficients and corresponding path delays associated with the multipaths involved. If the multipath delay spread is less than one symbol period, each received symbol in a received signal will depend only on the current symbol and the two adjacent symbols making each z -polynomial of order three. The multipath channel for the downlink direction (i.e., base station 12 to mobile terminal 16) is generally different than the uplink direction (e.g., mobile terminal 16 to base station 12).